

# Cell-phone sabotage

This is a tale about a debate in Washington, D.C., some high-tech testing in the Nevada desert (where else?) and how it's likely to determine not only if we mountain dwellers get better Internet but how much we'll end up paying.

A private company, LightSquared, is putting up \$14 billion-with-a-B to create a system that directly uses satellites. That means if your cell phone can't find a regular signal, like in Wolcott or on Vail Pass, it can link to the Big Bird in space.

It's 10 times faster than we have now, and parts of Colorado will be test markets once the rollout begins.

And did we mention that it's privately funded? It's not sucked from the federal trough for our children and grandchildren to pay, like the \$101 million granted to a Colorado group that says it wants to connect the state's schools and "other community anchor institutions" to a new fiber network.

And that leads us back to the D.C. debate.

Some very serious agencies, like the Department of Defense, worry that LightSquared's new system will mess with the Global Positioning System that has greatly improved society by ensuring that no self-respecting male need ever stop to "ask" directions again. And, oh yeah, it helps airplanes fly.

According to the Las Vegas Sun, though, early reports are that there's been no problem.

While bloggers screech, the Sun reporters checked with the local aviation association, where "no members ... have reported any problems." Then they checked with the Metro Police, where an official spokesman said, "There have been no anomalies, nothing. ... We've been watching it, and there has been absolutely nothing shown on our radar attributable to it. It's business as usual."

So, of course, the D.C. people are screeching that the sky is falling.

"Stop all approvals until this GPS threat is solved ... to every single human's satisfaction (especially the deep-pocketed companies terri-

fied of competing with this new system)," the D.C.-ers say.

The LightSquared CEO vented some frustration this week in a Washington political paper, blaming his potential competitors of "using litigation and political influence to protect themselves from the same competitive forces that first brought them success."

Imagine that.

I don't know jack about much of this technology, and I don't need to.

LightSquared is backed by some deep-pocketed private-money hedge fund and is getting a lot more political flak than we see when broadband proposals are paid for by Uncle Sam.

What I do know is the D.C. game of finding some technical challenge and trying to put enough lipstick on it to impersonate a policy problem.

Hey, if the FCC eventually rules that GPS isn't protected from the new guys, it doesn't approve the system. The worst case is we don't get our hot-shot satellite broadband and some hedge-fund guy in New York loses a whole big bunch of other people's money.

Quick, can somebody explain why the heck we would in any way delay progress on this thing?

I need to know because I'm about to head into Wolcott and lose cell service.

Staff Writer Randy Wyrick can be reached at 970-748-2935 or [rwyrick@vaildaily.com](mailto:rwyrick@vaildaily.com).

## MY VIEW



RANDY  
WYRICK

## Binder may signal bright future for Internet users

By Curtis Robinson  
Jun 25, 2011

Even if you still think “broadband” is hipster slang for the Lilith Fair opening act, you have to realize that faster Internet has moved from a convenience to a necessity.

In business recruitment circles, broadband is assumed to be part of the conversation in a way usually reserved for cable TV access in college dorm rooms. Indeed, along with cultural tolerance and talent pool, it can be considered the modern equivalent of old-school infrastructure like railroads, good highways and neighborhood bars.

So we should welcome news this week that Maine’s most ambitious effort to jump-start its lagging broadband access has been recognized as among the nation’s best.

If you don’t know about the Three Ring Binder, you probably should, especially if you’re a federal taxpayer because you’re footing most of the bill,

The Binder is a 1,000-mile series of fiber that will provide modern broadband access to much of rural Maine. The name comes from the series of “loops” that will do the connecting, and along with commercial access it will link many of our hospitals and colleges. Really, it should be no less than a revolution for Internet users in much of the state.

The system is reportedly on target for use next year and is being built by a private company and will be privately owned. But the \$32 million system is mostly paid for with \$25.4 million in stimulus money from the U.S. Department of Commerce. Its apparent owner, the Maine Fiber Company, Inc., didn’t even exist until after the money was awarded.

But the approval was backed with a unanimous vote from Maine lawmakers, the governor’s office and virtually anyone else who knew about the plan — well, not FairPoint, but that’s another story.

The new recognition comes from a U.S. Chamber of Commerce study on “... business friendly economic development opportunities across the country.” It ranks Maine number one in the nation when it comes to infrastructure, announced the Three Ring Binder developers, because of the broadband expansion.

According to a press release, the Chamber study, “Enterprising States: Recovery and Renewal for the 21st century,” was released June 20 by the U.S. Chamber of Commerce and the National Chamber Foundation. The study looked at infrastructure, as well as many other factors, in all 50

states with a strong focus on high-speed Internet or broadband infrastructure noting “broadband telecommunication infrastructure is at the forefront of many state public policy initiatives and is viewed as indispensable to economic and community development.”

Of course, we’ve all come to realize that the Internet is not exactly the same everywhere and finding a decent connection away from the cities is only slight less difficult than finding a decent double-shot low-foam almond-soy latte.

Many of my friends who know much more about technology than I ever will assure me that a New Future is right around the corner. They say that local projects like the Binder will be joined by national efforts like the LightSquared network, making its way through the FCC permit process. LightSquared aims to provide 4G broadband nationwide while also extending cell phone and text services to anyone who can access communications satellites — that promises a virtual end to those frustrating “dead zones” for cell phones.

But I suspect that the real impact of these networks may come from their shared business model. Both the Three Ring Binder and LightSquared illustrate a trend toward “wholesale” networks, meaning neither will be a retailer like we see with Verizon and AT&T. Instead, they will cater to companies that package communications products that use the networks.

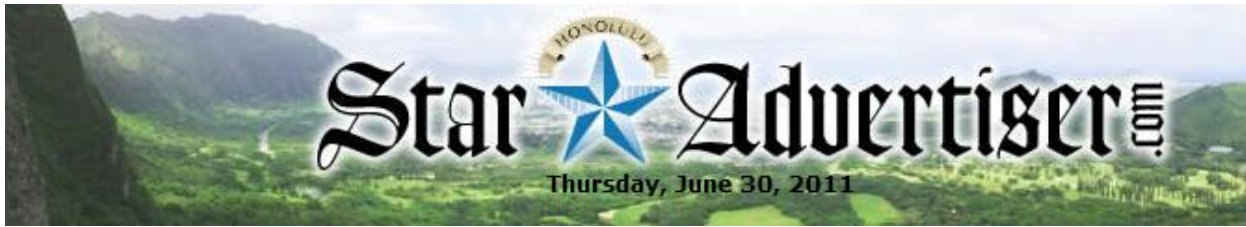
That means a lot of small business operators will step into that “last mile” retailing space. The innovation will be welcomed and comes at a time when some argue that the Internet should become pay-to-go, offering priority to those who can afford it.

For the record, Maine’s congressional delegation gets high marks from the free-Internet camp, and Sen. Olympia Snowe in particular has been a strong vote of keeping the Internet a level playing field. But that debate is far from over, and we’re bound to see more mergers like the proposed anti-competitive coupling of AT&T and T-Mobile.

That makes the The Three Ring Binder and other networks even more important, and maybe even worth that \$25 million taxpayer investment.

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# Hawaii needs satellite broadband service

ISLAND VOICES

By Brysen Poulton

June 30, 2011

Innovation has always played a prominent role throughout the culture and history of Hawaii beginning with King David Kalakaua, who envisioned a modern communications service for the islands.

He put his vision into practice by installing a modern communications system at Iolani Palace that included the recently invented telephone and also granted the first telephone charter in the kingdom in 1883, all of which was revolutionary for the time.

Today, the Obama administration's plan to "win the future" involves the 21st-century equivalent of island innovation, extending far and wide access to high-speed Internet service, a critical component of modern communications infrastructure.

And while significant investment and innovation have brought wireline broadband to more than 95 percent of American households, wireless broadband is fighting what seems to be a losing battle to keep up with consumers' voracious appetite for bandwidth, the demand for which doubles every two years.

But America and Hawaii can't afford to wait. With an improved high-speed Internet infrastructure, our access to the best teachers and doctors would no longer be limited by geography. Small businesses would be able to access markets worldwide without the costs of travel or long-distance phone bills. Without this critical infrastructure, we pay a tremendous price in terms of our productivity, our access to information and the everyday convenience of this technology that we have come to depend on and enjoy.

The Federal Communications Commission says some 10 million homes still lack access to any form of broadband service, while 2 million more have access only to older, substandard services. As an extremely isolated island chain and a largely rural state, Hawaii falls within these statistics. Wireless technology holds the promise of affordably serving these homes, but faces tremendous investment challenges. Here in the U.S., the FCC figures the price for ubiquitous next-generation broadband to run about \$350 billion.

This being the case, using airwaves traditionally set aside for satellite communications seems to be the most fertile ground for innovation and political consensus. Already, the FCC's decision to enable satellite companies to build hybrid ground-based mobile wireless services has led

LightSquared to invest a planned \$14 billion and a commitment to reach 92 percent of the country with 4G wireless by 2015.

LightSquared has developed the first, wholesale-only nationwide integrated 4G-LTE wireless broadband and satellite network that will offer consumers the speed, value and reliability of universal broadband connectivity. This virtually guarantees absolute coverage in unserved and underserved areas as well as redundancy for emergency use in the event of natural disasters. Hawaii is one of the early states where LightSquared intends to roll out service.

In the final analysis, we face a very real bandwidth crisis because present supply simply cannot keep up with demand. Because this is such a highly regulated industry, we must actively communicate with our Washington delegation our desire to see satellite broadband service brought here.

*Brysen Poulton, a former education specialist with the state Division of Consumer Advocacy, is an independent communications and government relations consultant.*

[http://www.staradvertiser.com/editorials/20110630\\_Hawaii\\_needs\\_satellite\\_broadband\\_service.html](http://www.staradvertiser.com/editorials/20110630_Hawaii_needs_satellite_broadband_service.html)

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## **Chris Hall: Red tape threatens needed broadband improvements**

By Chris Hall

July 9, 2011

Being able to "reach out and touch someone" is not just a kind of glue in our day-to-day social and family relationships. It can be a matter of life and death in an emergency.

As ubiquitous as the wireless connection seems on our smartphones, anyone who has attended a large sporting event can attest to the impending bandwidth crisis -- when too many people try to use their cellphones at the same time, networks clog. At a Mountaineer game, it's a nuisance; in a natural disaster, it can be tragic.

None of us will ever forget the disruption of telecommunications on 9/11 and the chaos that followed. Parents trying to check on their children were rebuffed by clogged airwaves, and emergency personnel found their communications channels overloaded. The lesson soon learned was the need for diverse networks and redundancy: Phone networks could be resuscitated only because fixed satellite services, like Intelstat and PanAmSat, shifted their satellite capacity to cellular networks when needed.

The modern day engineering reality is that cell towers have capacity limits -- limits increasingly challenged with the daily torrent of new video applications on our smartphones. And while we are not in crisis mode yet -- on a normal day the towers can handle the demand -- a future bandwidth traffic jam is nearly inevitable with the yearning American appetite for bandwidth doubling every two years.

Most experts agree that something needs to change and that the communications watchdog -- the Federal Communications Commission -- needs to display the same leadership it showed after the 1996 Telecom Act, when the agency helped unleash the wonders of the Internet age.

Recently, the FCC has been moving toward what most experts think is the best -- perhaps only -- answer to the bandwidth challenge by giving the green light to a hybrid integrated satellite and terrestrial (cell tower) model. New entrepreneurs such as LightSquared of Reston, Va., which some have likened to the Apple or Google of wireless innovation, have configured truly revolutionary networks. If its cellular network goes down or is overloaded, it can shift capacity to its space-based satellites reliably and seamlessly in a matter of minutes. It is a model that is being studied worldwide.

And if the network is successfully implemented, emergency personnel will no longer have to worry about whether their phones work in the aftermath of a tornado, and we won't have to worry about dropped calls because our neighbor is downloading "Hangover 2" on his smartphone.

So what's the catch? These new hybrid networks require massive private startup funding and must clear mountains of red tape at the federal and state levels. For the most part, the demonstrable brilliance of the hybrid networks has attracted the necessary investors. But the red tape is a different story.

Some wireless companies who fear that the hybrid networks could make their terrestrial-only networks look like dinosaurs have called for studies and hearings. Some GPS device manufacturers have complained that their receivers are so clumsy that they will get interference from the hybrid satellite-terrestrial networks.

But these sheepish complaints appear so empty that one would think the lobbyists making them would be embarrassed by the gamesmanship. The hybrid networks will never replace terrestrial ones like those used by AT&T and Verizon, but will rather bolster them. And GPS devices can, in most cases, be upgraded with modern-day filters that cost a dime so that they don't inadvertently pick up the signals of the hybrid networks.

In LightSquared's case, the firm recently adjusted its transmitters to be even farther away from GPS receivers, resolving any possible interference for 99.5 percent of GPS receivers.

The telegraph gave way to radio and then radio to television. Black-and-white television gave way to color, and broadcast was supplemented by cable television in the 1980s. Today, online video is all the hype, and we watch the NBA finals on our phones. At every stage of the competitive communications revolution, there is something new. And, while that doesn't mean that the old has to get replaced, it does mean that luddite impulses of the old to slow the new have to be checked by our policymakers -- in this case the FCC.

It all comes down to time. We are one more disaster away from losing lives unnecessarily because our devices fail during emergencies. And we are a couple years away from even greater wireless traffic jams as our communications and entertainment epicenters migrate to the wireless world.

Our government policymakers need to be leading the parade of progress not following it. That's the kind of change I voted for.

*Hall is executive director off the West Virginia EMS Coalition.*

<http://wvgazette.com/Opinion/OpEdCommentaries/201107090915>

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## John C. Mahaney Jr.: Smart links for retailers

By John C. Mahaney Jr.

July 20, 2011

COLUMBUS: To survive and prosper, the owner of a retail business has to be ready for the next innovation — the latest fashion, food or newest technology — or customers are sure to shop elsewhere. In some cases (think of that small mom-and-pop store in rural Ohio), adapting to the latest technology can be prohibitively expensive.

But a revolution is coming that might give every retailer that ability.

The broadband wireless revolution is a once-in-a-generation economic shift that could not only enhance productivity but increase equality and opportunity. Mobile phones and devices we use to communicate are growing smarter, able to handle high-speed data transmissions and run applications like full-size computers.

The smart-phone trend isn't news to most Americans, but its pace may be: In 2009, 23 percent of mobile phones were smart phones; in 2010, 31 percent; and today, more than half of all mobile phones sold are smart phones.

In addition to email, texts, live video feeds and other applications, wireless broadband devices allow a consumer to not only compare prices while standing in a store but also purchase that product from another store with the push of a button. In a sense, high-speed Internet anywhere, anytime levels the information playing field between the smallest store in southern Ohio to the biggest in any of our major cities — but only if broadband signals are available anywhere.

The demand for wireless data is expected to increase fortyfold in the next four years alone as American businesses and individuals increasingly rely on high-speed wireless in every aspect of their lives. However, it is becoming clear that the current wireless infrastructure cannot handle the oncoming demand. We need more reliable broadband wireless capacity.

There is hope out there. Just like retailers adjust to better serve consumers, innovative wireless providers are stepping forward to offer more broadband capacity — companies like LightSquared, which has proposed a new \$14 billion national wireless network that would give 260 million Americans next-generation wireless service (known as 4G-LTE) by 2015. This could be the life raft many retailers in rural Ohio need during these tough economic times.

As sometimes happens in a revolution, the established insiders are trying to stop it. Users of certain GPS receivers complain that they might pick up LightSquared's nearby signal, but



experts say these technical problems can be easily fixed and that this is no reason to stand in the way of true progress.

LightSquared is but one example of the type of innovation broadband wireless needs. Clearwire is another company looking to offer retail and wholesale service through an expanding network — all of which will benefit consumers and, in turn, benefit retailers right here in Ohio. Other providers are using WiMAX to deliver wireless broadband to more people. But they need regulatory approval and political support to move forward.

Congress and the Obama administration can take a stand for innovation and small business owners by supporting new wireless broadband providers who are investing in America's future. Progress often pits the advocates of the status quo against the innovators — a lesson well known to retail business owners, who are among the best at embracing change. The impending crisis in broadband-wireless bandwidth has made clear the importance of change, and it's the kind of change that elected officials who campaigned on its moniker could and should deliver.

*John C. Mahaney, Jr. is the president and chief executive of the Ohio Council of Retail Merchants & Affiliates.*

<http://www.ohio.com/editorial/john-c-mahaney-jr-smart-links-for-retailers-1.226039>

July 21, 2011

## Blanket Michigan, nation in broadband

*LEWIS N. DODAK AND RICK JOHNSON*

A century ago, President Woodrow Wilson set out a bold vision that paved the way for America's tech future: ensuring that every American would have access to a telephone.

President Obama faces a similar modern-day challenge: extending all Americans access to broadband Internet. We need that now in our country and especially here in Michigan.

The challenge is especially stark for wireless broadband, demand for which is expected to grow 40-fold over the next four years as more Americans embrace their smartphones and their burgeoning applications.

The Federal Communications Commission is attempting a variety of bold actions to address the problem, but special interests are resorting to politics to slow progress and competition.

Wireless broadband is more than just our ability to download music. It allows public safety workers to exchange information in an emergency. It provides small business owners tools they need to compete with corporations. The 26 million Americans who lack broadband access are, in a sense, denied an equal shot at the American dream.

What can government do to encourage the \$350 billion investment needed for all Americans to have broadband access?

Several government programs have aimed to spur investment; each has met with resistance. The Department of Agriculture has implemented programs like the Farm Bill Broadband Loan Program, the Broadband Initiatives Program (from the stimulus bill) and others aimed at encouraging investment. But special corporate interests have commandeered these programs and misappropriated them for giant corporate subsidies in areas that already have broadband.

The FCC has suggested that broadcast stations voluntarily auction off their unused spectrum in an attempt to free up 500 MHz of spectrum to encourage more high-speed wireless deployment. But broadcasters have balked, leaving taxpayers to continue footing the bill while they hoard the public spectrum.

The most viable solution is to convert other parts of the public airwaves for wireless broadband use. Many experts and the FCC agree that a hybrid satellite-terrestrial network, in the works for the past decade, is the next wireless broadband chapter.

And while new technologies are taking off in Europe and Asia, giant incumbent companies are

trying to fight them here. Some GPS companies are arguing their now-outdated receivers can "hear" the previously unoccupied satellite bands that the new 4G-LTE networks will use to deliver broadband to America.

Every decade we see new technological breakthroughs. Our country and our state need to take advantage of these breakthroughs to create jobs. If we don't, others will. It is foolhardy not to move forward.

*Lewis N. Dodak and Rick Johnson are both former speakers of the Michigan House of Representatives.*

<http://detnews.com/article/20110721/OPINION01/107210336>

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## Dropping the Ball on Dropped Calls

*Wednesday, August 17, 2011*

By Bill Strong

As anyone who lives or works east of Winchester knows, cellular service is spotty at best and non-existent at worst. Clogged networks result in dropped calls and the uniquely time-wasting activity of driving from one place to another to reach “high ground” in order to find a “hot spot” where a call can be made or received, or messages can be retrieved.

The wireless deficiencies in Eastern Kentucky aren’t merely a matter of convenience. During emergencies, fire departments, police and sheriffs’ departments, state police, and EMTs often cannot communicate with each other. Even more frequently, emergency numbers can’t be reached by those at the scene of fires, accidents, or other emergencies.

While we read and hear promises from the federal government, as well as from companies that could have served us better years ago, they continue to be just that: promises. No improvements ever seem to be forthcoming.

Now a company called LightSquared has proposed a nationwide system of wireless service that would cover 100 percent of the country, most importantly including the hills and valleys of eastern Kentucky. Yet their application is being held up by bureaucratic wrangling in Washington, fueled by opposition from GPS (Global Positioning System) companies that would experience interference from the new wireless service because they have been actually “squatting” on a part of the broadband spectrum awarded to LightSquared’s predecessor, SkyTerra, over 10 years ago.

SkyTerra is a familiar name in Kentucky, as it helped the Kentucky Health Department provide satellite phones to rural hospitals and first responders through a program several years ago that has since lost funding. The LightSquared network actually would use a hybrid of satellites and cell towers to ensure connectivity even in remote areas.

The GPS industry has known about this upcoming new network for more than eight years, when the FCC gave initial approval. But rather than adjusting its equipment, the GPS industry has behaved like a man who builds a barn on his next-door neighbor’s property, then raises a stink when the neighbor asks him to take it down. Even though LightSquared has adjusted its launch plans to avoid the part of its spectrum closest to the GPS spectrum – fixing any interference

issues for 99.9% of GPS devices – the GPS industry is spending millions on a lobbying campaign that is bypassing the normal Federal Communications Commission process and asking Congress to intervene.

Note that the FCC and LightSquared have pledged not to launch service until the GPS interference issues are mitigated. It would be madness to allow GPS signals to be interfered with, as they are relied upon by truckers, farmers and ordinary Americans. But it would be equally crazy to snuff out a brand new competitive wireless network that would finally bring clear, high-speed wireless connections to rural Americans.

That's right: the technology exists today -- this minute -- for eastern Kentucky to obtain 100 percent wireless coverage. LightSquared is ready to build its network and has in fact pledged to provide high-speed 4G-LTE mobile broadband service to at least 260 million Americans within four years. That's why it is more than unfortunate to see the rank obstructionism of the GPS and other industries toward LightSquared's approval. Think of the opportunities if GPS and broadband wireless were both available statewide, to join in efforts such as implementing "Amanda's Law."

We will never know, however, unless the new network is allowed to be put in place. It is a pity that entrenched interests become so obstructionist to new technologies that would help so many people like those of us who live and work in the mountains. Maybe this time will be different.

*Bill Strong is a former minority leader of the Kentucky House of Delegates.*



*Diane Russell*

State Representative, Maine House of Representatives

## **Transforming Rural Economies: Bridging The Digital Divide**

Growing up in Bryant Pond, about as rural as it gets in Maine, taught me a little something about being at the tail end of innovation.

The last crank phone operator station in the country was located right down the street from our home. While the celebrity status is great, the educational piece was the vigorous debate over whether or not our town should upgrade to that fancy new technology -- the dial tone.

In hindsight, it seems quite obvious that we should move up the technological food chain. At the time, though, the debate was heated. The debate was not really about crank phones vs. dial tones. The debate was about preserving our heritage vs. embracing the future.

While we recognized the need to embrace the dial tone -- and the future -- we were truly unprepared for the technological and economic revolution that came with it. In the intervening years from the day I watched our town "yank the crank," I've seen a steady stream of good paying jobs leave the country for better infrastructure, lower wages and opportunities for offshore profits.

Nearly three decades later, however, technology has again zoomed on ahead. There are places in my state that have not really progressed beyond the dial tone. The "digital divide" is real and consequential for those communities who cannot attract businesses for lack of Internet infrastructure.

This is not exactly a secret and to its credit, Maine has been aggressive in seeking out opportunities to transform its rural broadband infrastructure. We won a \$25.4 million economic stimulus grant to build out what we call the Three Ring Binder project, designed to finally bring broadband service to rural parts of the state. Not only is this project a giant leap forward in



bridging the divide, the U.S. Chamber of Commerce [recently ranked](#) Maine number one in the category of infrastructure, and particularly broadband.

However, much still needs to be done in Maine and other parts of rural America.

A company called LightSquared, formerly the satellite telephone company SkyTerra, is working to roll out the first truly nationwide 4G LTE network bringing wholesale high-speed broadband wireless Internet and reliable cell phone service to a full 97 percent of the country. It is a \$25 billion project that has the power to transform rural economies while boosting serious competition. The proposed network also comes with an understandable array of technological challenges, but such hurdles have been steadily overcome for years now.

As it stands, two major telecom companies are trying to merge into one mega-company. While AT&T publicly touts the 100,000 new jobs, critics argue that T-Mobile is already setting up severance packages for 20,000 of its employees. Instead of consolidating our telecommunications systems, let's instead breed real competition and the type of local innovation that truly powers robust economies.

State legislators from rural states across the country have been speaking in favor of this project. After all, we are the ones who get the call -- from somebody we know -- when someone watches the economy flush their career down the toilet. We're the ones who are tasked with figuring out how to [put food](#) back on the food pantry shelf. And we're the ones who are tired of telling our constituents "our hands are tied."

This time around, we must embrace our future which means truly preparing for it. If Congress can't get out of its own way to invest in the infrastructure incumbent on our generation to build, then it is time for them to at least get out of the way of this important infrastructure project. If Americans can put a man on the moon, we can be sure everyone has access to high-speed broadband Internet, regardless of where they live.

[http://www.huffingtonpost.com/diane-russell/broadband-internet-access\\_b\\_935481.html](http://www.huffingtonpost.com/diane-russell/broadband-internet-access_b_935481.html)

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## **Don't block the road**

*José Menéndez, Texas House of Representatives  
August 27, 2011*

'If my friend, Senator Warren, wishes to use one of these newfangled devices inside the confines of his own ranch in Wyoming, no one shall say him nay, but not on the public roads," said Sen. Joseph Weldon Bailey, D-Texas, on introducing legislation in the early 1900s that would have banned automobiles from public highways. "The horse has an ancient and prescriptive right to the highways."

Bailey strongly believed that the rise of the automobile meant the fall of the horse and the farmers he represented. One century ago, it would have been difficult to foresee all the modern inventions — harvesting combines, hay-balers, F-150's — that his well-intentioned legislation would have needlessly stifled.

The special interests in Washington are now trying to force a similarly misguided choice on the FCC. This time, the decision pits the old technology of GPS devices against new wireless providers that offer innovation, competition and investment to neglected rural communities. If the GPS lobby and its powerful allies in Washington get their way, rural communities may never see the benefits that new wireless competition offers.

There are now companies like LightSquared with plans to connect 100 percent of the country to a hybrid satellite and cell-tower wireless network, boasting speeds unheard of in rural communities, long ignored by the major cell phone providers. Such a network would create thousands of jobs a year and save consumers billions of dollars. It would help connect rural schools and businesses to world-class communications and information systems. Perhaps most importantly, it would bring more competition in the wireless industry, lowering prices and increasing speed and customer choice — especially in rural areas.

Connecting to new wireless networks would do for farming communities in the digital age what the harvesting combine did during the industrial revolution. Farmers could receive up-to-the-minute weather reports, create online clearinghouses for agricultural best practices, and keep an eye on ever-changing agricultural prices and trends.

GPS companies predict that this new wireless service would interfere with their devices and cause widespread failure. They say that some GPS devices search through the new wireless

spectrum when looking for available satellites.

They claim that making a call on this network could confuse GPS devices.

Yet tests indicate that the new wireless service wouldn't cause any interference for 99.95 percent of GPS users, and simple, inexpensive upgrades could solve the problem for the other 0.05 percent. Still, the powerful GPS lobby has managed to convince some in Congress to try to force the FCC into banning these new companies from offering their new wireless service to anyone.

Once the wireless revolution reaches rural America, Congress will realize that banning these innovative new wireless networks was just like trying to ban automobiles from public highways — an unnecessary regulation based on bad facts and special interests' scare tactics. That is, unless the scare tactics carry the day.

It's a perfect example of how an alliance between corporate self-interests and Washington power brokers often has conspired against innovations that could create jobs, save consumers billions and deliver real competition.

The choice between corporate profit and consumer benefit is clear.

After many frustrated attempts to increase wireless access in rural communities, new companies want to plant seeds that will bring wireless service to everyone. Congress should put its lobby-inspired regulations back in the shed and let the rural wireless revolution grow.

***Menéndez, a San Antonio Democrat, represents District 124, which includes rural Bexar County.***

# Sun Journal

## Time to bridge the digital divide

By Rep. Sheryl Briggs  
Sunday, Sep 4, 2011

Representing a rural Maine district, I cringe every time I hear the phrase “digital divide.” It sounds like a polished, sugar-coated name for something that has decimated rural economies such as mine. People laugh when they hear the sound of dial-up in Hollywood movies; it’s clearly a “classic movie.” In my area, that sound is very real and ever-present for many constituents still living on that last mile.

We have worked for years to revitalize our downtown, invest in our local economy and provide opportunities for our young people to flourish here. Each year, though, it seems there are more people struggling to make ends meet, find work and raise their families in dignity.

More people come to me seeking assistance with their unemployment, food stamps and housing costs. I am not just talking about the working poor, either. I am talking about proud families who have worked hard for years and fallen on economic hardship due to the recession. Or worse, because their jobs up and left, leaving them a pink slip for their scrapbooks.

We don’t ask for much and we don’t have big dreams, but we do all share a hope and a desire for the American Dream.

That dream is drifting further and further away with each passing year.

We have few choices in jobs, but we also have very few choices in Internet and cell phone service. While folks in more urban areas can price shop, we are stuck with whatever company can actually provide service.

Many of the folks who live outside of the downtown area are forced to get their Internet through dial-up. How are we supposed to transition to the global economy on dial-up?

How can my business owners compete on a level playing field when our technology is so far behind urban America, not to mention the rest of the world?

To be clear, I’m not asking for a handout; we would be happy to pay for the service ... if there were any.

The Federal Communications Commission is reviewing a project by LightSquared that would bring 4G wireless broadband Internet to communities such as mine — to that last mile.

There is a debate between the GPS industry and LightSquared over the radio spectrum, and that some farmers and fishermen may have issues with their equipment. Precision GPS is important to them and we should protect it.

Broadband Internet is also important and a cornerstone of sustained economic growth. Our delegation should be fighting to protect the precision GPS necessary for our fishermen and farmers to succeed while also paving the way for rural broadband telecommunications.

It is time to move all of America into the 21st Century and finally bridge the gap between communities that have services to choose from and communities that may not have service at all.

Our delegation must do all it can to ensure rural communities such as mine can compete with urban counterparts.

Let's ensure the American Dream is accessible to everyone, regardless of where they live.

***Rep. Sheryl Briggs of Mexico represents Maine District 93.***

Sunday, September 04, 2011

## **Byron Dorgan and others, Washington, column: Rural America needs next-gen wireless network**

The association believes LightSquared's network may be the only way for rural Americans to gain affordable access to wireless high-speed data services. But before LightSquared can launch service, the company has both technical and political hurdles to overcome.

**By Byron Dorgan, George Nethercutt and Charlie Stenholm**

WASHINGTON — We all know that access to high-quality, affordable wireless service can be difficult in rural areas. We've all experienced phone calls dropped in mid-sentence or seeing the words "no service," emails that take hours to send and websites that never load.

And all of us know what it's like to get the monthly bill and be shocked by how much we're paying.

LightSquared is out to change all that. With their new nationwide wireless network that combines direct-to-satellite service with ground-based towers, LightSquared will offer high-speed wireless broadband even in remote areas.

Rural Americans will be able to access the Internet 300 times faster than a dial-up connection.

The company's business model is equally revolutionary. LightSquared will sell broadband access on a wholesale-only basis, allowing any number of smaller wireless providers to enter the market, including carriers that specialize in rural areas, such as rural telephone cooperatives, independent telephone companies and others such as Open Range and Cellular South. More competition means more innovation, better service and lower prices.

For business owners, farmers, workers and families in rural America, LightSquared could be a real breakthrough, especially for the 28 percent of rural households that don't have any kind of broadband access.

LightSquared helps bridge this digital divide.

It's not just LightSquared saying so, either. The Rural Cellular Association has stated that "LightSquared's wholesale broadband network would significantly advance the FCC's goal of promoting much-needed competition in the wireless market.



“Permitting LightSquared to move forward expeditiously would not only introduce new competition, it would help ensure that existing smaller, rural and regional wireless carriers remain competitive with the major national carriers.”

In fact, the association believes LightSquared’s network may be the only way for rural Americans to gain affordable access to wireless high-speed data services.

But before LightSquared can launch service, the company has both technical and political hurdles to overcome.

LightSquared’s licensed spectrum — the airwaves assigned for the network — are next door to the global positioning system (GPS) spectrum, and some GPS devices are using LightSquared’s spectrum for their service.

The FCC is studying the susceptibility of GPS devices to LightSquared’s signals, as they have been designed to “squat” in LightSquared’s spectrum in search of GPS signals.

LightSquared is confident in meeting any technical challenges and doing so entirely through private investment — no taxpayer dollars of any kind.

But the political hurdles are proving to be even more daunting. Some GPS corporate interests are asking Congress to prohibit the FCC process from moving forward. But the testing process is critical because GPS services are important in many parts of our lives, particularly in agriculture.

The FCC has said that GPS and LightSquared can co-exist so that rural Americans can reap the benefits of both GPS services and LightSquared’s robust broadband wireless network.

Fortunately, a solution is on the horizon. After the initial round of testing conducted by LightSquared, GPS and government engineers, LightSquared proposed launching service only in the lower half of its licensed spectrum — the frequencies furthest away from the GPS frequencies — which would leave a wide buffer zone between itself and the closest GPS frequency.

Test results indicate that 99.95 percent of existing GPS devices would not be affected if LightSquared were to operate on the lower 10 MHz, and LightSquared has committed to underwrite a technological fix that addresses the remaining receivers that might be affected.

Engineers are already working on a solution, and the prognosis from vendors is that building a GPS device that tunes out LightSquared’s LTE signals is imminent.

The FCC recently asked the GPS industry for details about its receivers that pick up signals inside LightSquared’s spectrum. As engineers develop filters or other technical solutions that could solve the problem, rural Americans are starting to speak out in favor of an important principle: our economic future depends on both GPS and world-class wireless broadband.

Thanks to American ingenuity, we can have both.

*Dorgan is a former U.S senator from North Dakota. Nethercutt and Stenholm both are former U.S. representatives — Nethercutt from Washington, and Stenholm from Texas.*

*LightSquared hired the former lawmakers to serve on advisory board for the Empower Rural America Initiative, a group that will help the company work toward deploying its planned satellite and broadband service.*

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# Expansion of wireless network critical for Michigan

*Tuesday, September 13, 2011*

By Orjiakor N. Isiogu

Americans are adopting broadband wireless devices faster than any other technology in history. The speed of this trend is transforming the American economy and way of life.

It also poses a challenge to federal and state policy makers: how can we ensure that every American has access to the benefits of broadband wireless without breaking the bank or disrupting older technologies?

Fortunately, we have overcome this type of problem before and we can do so again. The transition to digital TV is a perfect example.

Millions of Americans are watching pennant races and the return of the NFL in sparkling HD-quality broadcasts. It's a technological luxury we take for granted. But we'd likely still be watching fuzzy standard-definition images today had Congress not intervened in the standoff between broadcasters and electronics

manufacturers over how and when to innovate.

It's a cautionary tale for tech companies and regulators alike. Since 1996, electronics companies were ready to start making HDTVs, but because broadcasters were reluctant to spend the money to upgrade their stations to go digital, manufacturers delayed production. Broadcasters claimed that the investments would cripple their industry. Despite their "sky is falling" rhetoric, today broadcasters are faring just fine.

The FCC now faces a similar challenge as it works to increase wireless capacity and competition. The poster child may be new 4G-LTE wireless company LightSquared, which is facing heat from an industry that is resistant to adapting to a new technology in the airwaves next door to its own.

Like HDTV before it, 4G-LTE wireless holds incredible promise for consumers and device manufacturers alike. But today there is insufficient wireless capacity to support millions of 4G-LTE devices, and demand is rising ever faster. According to Cisco Systems, mobile traffic is expected to increase 26-fold by 2015. By 2015 the majority of Internet traffic will be via mobile devices — a reality unthinkable just two years ago.

That's why LightSquared's venture is significant. It would substantially increase America's broadband wireless capacity while providing next-generation high-speed wireless data and voice to areas previously underserved. In addition, the company plans to market its nationwide network on a wholesale model, allowing any number of new competitors to enter the market. Many observers have hailed this proposal as a key part of President Obama's plan to increase high-speed Internet adoption nationwide, while also increasing competition in a consolidating wireless industry, all at zero cost to taxpayers, thanks to a planned \$25 billion investment

by the company.

More competitors in the market will mean lower prices and better service for consumers, along with expanded wireless broadband options. Another key benefit will be the economic benefit associated with building out a national network, including the creation of an estimated 15,000 jobs per year.

Public safety could be enhanced by this network as well.

As a regulator, I can fully appreciate the dilemma faced by the FCC in this particular case, as well as the overall issue of expanding the 4G network. Testing indicates that there is indeed a way to make certain that both interests can co-exist. It is my hope that the FCC will resolve this issue expeditiously, and we can reap the benefits of the expanded 4G network.

*Orjiakor N. Isiogu is chairman of the Michigan Public Service Commission.*

<http://www.detnews.com/article/20110913/OPINION01/109130320/1008/Expansion-of-wireless-network-critical-for-Michigan>

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# Richmond Times-Dispatch

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## **Pantele: Broadband can move us forward...**

**By BILL PANTELE**

Revolutions are typically something we read about in the news or see on television — marchers and protesters and that sort of thing. Maybe tanks. Pepper spray.

But not all revolutions are the same. We're in the middle of a technology revolution, and many millions of us hardly make a move without participating in it. Smartphones and high-speed broadband are remaking society — and in this revolution the masses are clamoring for more-reliable connections, faster downloads and greater choice.

The speed of the revolution is astounding. Ten years ago, BlackBerry was an interesting idea, and Android and iPhones were unknown. You know what happened next: Wireless communication has become essential in any kind of business or social activity. Whether you're a business owner checking emails, a parent keeping up with your kids or a farmer monitoring weather conditions and market price, high-speed wireless information creates 24/7 communications, increased productivity and, often, wiser decisions.

But demand for data is starting to strain the capacity of broadband networks even as tens of millions of consumers eagerly await the next generation of broadband wireless: high-definition media, simultaneous data streaming and much more.

Next-generation high-speed wireless broadband is going to take a lot of bandwidth, requiring multiples of what we have now, and only growing. And it will require new technologies and leaders to make it happen and to put it in our hands. American ingenuity and resourcefulness have always responded to such challenges. Will we answer the call this time around?

As with most revolutions, this one includes actions by or against entrenched interests — those who prefer to keep things just as they are, with little regard for the wants and lives of their very own communities. The entrenched interests martial the troops and set up checkpoints and barricades.

Originally in writing this, I meant to comment on the big wireless companies' responses to the smartphone revolution. Clearly, the number of national wireless providers has declined, yet even with the promise of greater broadband capabilities we in America get data limits and less competition.

But the recent story that caught my eye was about a Reston company named LightSquared. Its



struggle epitomizes the fight about whether America is going to be the technological leader of tomorrow.

LightSquared, an established satellite-phone provider, looked at the high-speed wireless market and found many areas with marginal coverage and little competition — keeping prices high. So LightSquared developed a concept combining a new network of cell towers with its existing communications satellites into a seamless package capable of bringing next-generation broadband to anyone and everyone, everywhere.

Here's the thing: LightSquared isn't in the retail wireless business at all — its combination package (a super-advanced, Boeing-manufactured satellite is already in the sky) provides the technology backbone on a wholesale basis. That means any number of companies could sign up to offer a truly superior data experience anywhere, any time. That should lead to much more competition, giving people like you and me a lot more choices and lower prices. It's a game-changer.

But once again, the entrenched interests are pulling back on the reins as hard as they can, with their feet straining in the stirrups.

The interesting thing is that these interests are not the major wireless companies. This time the "old guard" is the GPS industry.

It turns out that some GPS equipment is designed to pick up signals outside of the airwaves assigned to GPS — including inside LightSquared's licensed spectrum. Rather than fix their equipment, the GPS companies want to put LightSquared out of business — thus denying an innovative new wireless network to you and me. The GPS lobbyists are employing the usual delay-and-obstruct strategies that are so typical of Washington.

The good news is that so far the FCC has told the engineers to solve the technical problems, probably by designing filters for the GPS equipment; for its part, LightSquared plans to avoid using part of its spectrum closest to GPS's spectrum, which will eliminate 99.9 percent of the signal conflict. But the GPS lobbyists are pushing back hard, not just at the FCC but in Congress.

Just as positive technological developments of the past depended on smart government policy to fully benefit the American people, the wireless broadband revolution depends on the choices made in Washington today. Every American should be asking whether Congress and the administration will help the broadband innovators move us forward or allow the old guard to stymie progress for its own benefit.

Bill Pantele is a Richmond attorney and former president of Richmond City Council.

<http://www2.timesdispatch.com/news/oped/2011/sep/13/tdopin02-pantele-broadband-can-move-us-forward-ar-1304274/>

## **Rural areas need more wireless access**

*By Ralph Coldiron*

*September 18, 2011*

On TV and in the movies, police, fire and rescue officers often use space-age high-tech equipment to save lives and catch the bad guys. These fictional depictions have made supercomputers and sleek helicopters part of the popular culture. But in the real world, the difference between success and failure for public safety often comes down to a more mundane technology: communications.

At a basic level, folks in trouble need to reach 911 operators – the fundamental first step that initiates an emergency response. It's equally important for police, fire, ambulance and other responders to be able to communicate effectively with each other and, when necessary, access data and share it with other public safety personnel or the public. And while the past few years have brought tremendous leaps in wireless broadband technology that have improved the ability of citizens to contact 911 and of public safety officers to communicate effectively, modern wireless broadband technology is useless without a reliable wireless connection.

Unfortunately, in many rural parts of the country – including Eastern and Western Kentucky – wireless connections are spotty or nonexistent. Indeed, the Federal Communications Commission recently reported that most of the 26 million Americans without broadband access live in rural areas. Solving this dilemma would be a great help to public safety officers seeking to protect lives and preserve property.

That's why it is essential for policymakers in Washington to focus on underserved rural areas as part of the National Broadband Plan, which seeks to encourage new wireless investments from the private sector to meet the nation's growing need for broadband wireless service. Congress needs to make sure that these efforts address those areas with no service at all.

Fortunately, some companies with the technology and the capital to build new networks are tailor-made to bring high-speed wireless to rural America. LightSquared, for example, is a Virginia-based company that is well known to the public safety community because it has provided satellite phones to emergency responders for 15 years. Formerly known as SkyTerra, LightSquared has been working for a decade to expand its focus from satellite communications to wireless – and now it wants to build a nationwide next-generation wireless network combining satellites and ground-based transmitters that would reach 260 million Americans by 2015. Its satellite component means even remote areas would be reached, holding out hope for Eastern Kentucky and other rural areas of the country.

Not so fortunately, some companies that profit from older technologies are trying to stop the

newcomer in its tracks. Specifically, a coalition of manufacturers of GPS devices is asking the FCC to stop LightSquared because some GPS receivers mistakenly “squat” in the LightSquared spectrum, picking up signals there.

The FCC and LightSquared have said the new network won’t launch until the GPS interference issues are addressed, and LightSquared has modified its plans in a way that resolves the interference problem for 99.95% of GPS receivers. It’s now up to the GPS industry to show some good faith and work toward a solution that protects GPS while allowing LightSquared to launch its potentially life-saving service.

Those of us who care about public safety are urging the FCC to resolve these technical issues as soon as possible. The FCC’s job is to ensure public airwaves are used for the American people’s benefit – and nothing would make a bigger difference in the lives of rural Americans than to bring reliable broadband wireless to areas that currently lack it.

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<http://www.state-journal.com/news/section/1695>